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WARP Modeled Probability of Exceeding EPA Aquatic Life Benchmarks

FGDC Metadata

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Description Data Structure Data Quality Data Source Data Distribution Metadata

- Resource Description

Citation

Information used to reference the data.

Title: WARP Modeled Probability of Exceeding EPA Aquatic Life Benchmarks

Originators: Megan Shoda

Publisher: U.S. Geological Survey

Publication place: Indianapolis, IN

Publication date: 2016

Data type: tabular digital data

Data location: <http://dx.doi.org/10.5066/F7R20ZD3>

Larger Work Citation

Title: WARP Model Pesticide Predictions for EPA Reach File 1 segments: 1992-2012

Originators: Wesley W. Stone

Publisher: USGS

Publication place: <http://cida.usgs.gov/warp/>

Publication date: 2016

Data type: Tabular digital data

Data location: <http://dx.doi.org/10.5066/F7R20ZD3>

Description

A characterization of the data, including its intended use and limitations.

Abstract: Pesticides that represent the largest potential to impact ecological communities are those which exhibit a greater than 50 percent probability of exceeding a U.S. Environmental Protection Agency (EPA) Aquatic Life Benchmark. The Watershed Regressions for Pesticides (WARP) Web application includes tabular prediction data which document the probability that modeled stream reaches will exceed EPA Aquatic Life Benchmarks for 108 pesticides and 5 specific years. This metadata describes data which builds off of the probability that each stream reach will exceed an EPA benchmark to determine the percent of modeled stream miles that have a greater than 50 percent chance of exceeding an EPA benchmark. The complete list of WARP predictions were analyzed to produce these tables, which highlight only the pesticides which had a greater than 50 percent chance of exceeding a benchmark in one or more years.

Purpose: These data were generated to understand the potential for pesticides to negatively impact fish, invertebrate and aquatic plant communities and to expand the understanding of the probabilities for U.S. Environmental Protection Agency benchmark exceedances per stream reach.

Point Of Contact

Contact information for the individual or organization that is knowledgeable about the data.

Person: Megan Shoda

Organization: USGS

Phone: 317-600-2725

Email: meshoda@usgs.gov

Address type: mailing and physical

Address: 5957 Lakeside Blvd

City: Indianapolis

State or Province: IN

Postal code: 46278

Country: USA

Data Type

How the data are represented, formatted and maintained by the data producing organization.

Data type: tabular digital data

Time Period of Data

Time period(s) for which the data corresponds to the currentness reference.

Beginning date: 1992

Ending date: 2012

Currentness reference: ground condition

Status

The state of and maintenance information for the data.

Data status: Complete

Update frequency: As needed

Key Words

Words or phrases that summarize certain aspects of the data.

Theme:

Keywords: pesticide, model, prediction, benchmark, water quality

Keyword thesaurus: water

Place:

Data Access Constraints

Restrictions and legal prerequisites for accessing or using the data after access is granted.

Access constraints: None, however, acknowledgment of the U.S. Geological Survey would be appreciated in products derived from these data.

Use constraints: Although there are no restrictions or legal prerequisites for using the data, users are advised to read the data set's metadata thoroughly to understand appropriate use and data limitations.

- Data Structure and Attribute Information

Attributes of WARP Modeled Probability of Exceeding EPA Aquatic Life Benchmarks.txt

Detailed descriptions of entity type, attributes, and attribute values for the data.

Description: Tab-delimited file containing the percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark for five specific years and six benchmarks.

Source: U.S. Geological Survey

Attributes

Pesticide

Definition: Common name for pesticide active ingredient for which probabilities were calculated

Attribute values: Names of pesticides

Attribute definition source: producer defined

Pesticide Type

Definition: The pesticide designation defined by group of organisms that the pesticide is designed to target

Attribute domain values

Value	Definition
Herbicide	Pesticide designed to kill plants <i>Definition Source: producer defined</i>
Insecticide	Pesticide designed to kill insects <i>Definition Source: producer defined</i>
Fungicide	Pesticide designed to kill fungi <i>Definition Source: producer defined</i>

Attribute definition source: producer defined

2012

Definition: Percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark in 2012

Attribute domain range

Range	Value
Minimum	0
Maximum	100
Attribute units of measurement	percent

Attribute definition source: producer defined

2007

Definition: Percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark in 2007

Attribute domain range

Range	Value
Minimum	0
Maximum	100
Attribute units of measurement	percent

Attribute definition source: producer defined

2002

Definition: Percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark in 2002

Attribute domain range

Range	Value
Minimum	0
Maximum	100
Attribute units of measurement	percent

Attribute definition source: producer defined

1997

Definition: Percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark in 1997

Attribute domain range

Range	Value
Minimum	0
Maximum	100
Attribute units of measurement	percent

Attribute definition source: producer defined

1992

Definition: Percent of modeled stream miles with a greater than 50 percent chance of exceeding a U.S. Environmental Protection Agency Aquatic Life Benchmark in 1992

Attribute domain range

Range	Value
Minimum	0
Maximum	100
Attribute units of measurement	percent

Attribute units of measurement percent

Attribute definition source: producer defined

Benchmark

Definition: U.S. Environmental Protection Agency Aquatic Life Benchmark

Attribute domain values

Value	Definition
Acute Invertebrate	Toxicity value x LOC. For acute invertebrates, toxicity value is usually the lowest 48- or 96-hour EC50 or LC50 in a standardized test (usually with midge, scud, or daphnids), and the LOC is 0.5. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration%23ref_3
Chronic Invertebrate	Toxicity value x LOC. For chronic invertebrates, toxicity value is usually the lowest NOAEC from a life-cycle test with invertebrates (usually with midge, scud, or daphnids), and the LOC is 1. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration%23ref_3
Acute Nonvascular Plant	Toxicity value x LOC. For acute nonvascular plants, toxicity value is usually a short-term (less than 10 days) EC50 (usually with green algae or diatoms), and the LOC is 1. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration#ref_3
Acute Vascular Plant	Toxicity value x LOC. For acute vascular plants, toxicity value is usually a short-term (less than 10 days) EC50 (usually with duckweed) and the LOC is 1. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration#ref_3
Acute Fish	Toxicity value x LOC. For acute fish, toxicity value is generally the lowest 96-hour LC50 in a standardized test (usually with rainbow trout, fathead minnow, or bluegill), and the LOC is 0.5. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration#ref_3
Chronic Fish	Toxicity value x LOC. For chronic fish, toxicity value is usually the lowest NOEAC from a life-cycle or early life stage test (usually with rainbow trout or fathead minnow), and the LOC is 1. <i>Definition Source:</i> https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration#ref_3

Attribute definition source: https://www.epa.gov/pesticide-science-and-assessing-pesticide-risks/aquatic-life-benchmarks-pesticide-registration%23ref_3, accessed February 2016

- Data Quality and Accuracy Information

General

Information about the fidelity of relationships, data quality and accuracy tests, omissions, selection criteria, generalization, and definitions used to derive the data.

Logical consistency report: No formal logical accuracy tests were conducted

Completeness report: Data set is considered complete for the information presented, as described in the abstract. Users are advised to read the rest of the metadata record carefully for additional details.

Attribute Accuracy

Accuracy of the identification of data entities, features and assignment of attribute values.

Attribute accuracy report: No formal attribute accuracy tests were conducted

Positional Accuracy

Accuracy of the positional aspects of the data.

Horizontal accuracy report: No formal positional accuracy tests were conducted

Vertical accuracy report: No formal positional accuracy tests were conducted

- Data Source and Process Information

Data Sources

Information about the source data used to construct or derive the data.

Data source information

WARP predictions

Title: WARP Model Pesticide Predictions for EPA Reach File 1 segments: 1992-2012

Originators: Wesley W. Stone

Publisher: U.S. Geological Survey

Publication place: Reston, VA

Publication date: 2016

Data type: Tabular digital data

Data location: <http://cida.usgs.gov/warp/>

Media: Tabular digital data

Source contribution: Base data that were used to summarize pesticides and streams with a greater than 50 percent probability of exceeding Aquatic Life Benchmarks.

Beginning date: 19920101

Ending date: 20120101

Currentness reference: current

Process Steps

Information about events, parameters, tolerances and techniques applied to construct or derive the data.

Process step information

Process Step 1

Process description: For each year and pesticide, the source dataset contained the probability of exceeding each U.S. Environmental Protection Agency Aquatic Life Benchmark (ALB) for every stream reach in Reach File 1 (RF1 reaches). This dataset was trimmed to include only the pesticide, year and RF1 segment combinations which had a greater than 50 percent chance of exceeding an ALB. These data were combined with the total number of stream miles documented in RF1 in order to determine the percent of modeled stream miles in which there was a greater than 50 percent chance of exceeding an ALB.

Process date: 20160613

- Data Distribution Information

General

Description of the data known by the party from whom the data may be obtained, liability of party distributing data, and technical capabilities required to use the data.

Distribution liability: Although this dataset has been used by the U.S. Geological Survey, U.S. Department of the Interior, no warranty expressed or implied is made by the U.S.

Distribution Point of Contact

Contact information for the individual or organization distributing the data.

Person: Megan Shoda

Organization: USGS

Phone: 317-600-2725

Email: meshoda@usgs.gov

Address type: mailing and physical

Address: 5957 Lakeside Blvd

City: Indianapolis

State or Province: IN

Postal code: 46278

Country: USA

- Metadata Reference

Metadata Date

Dates associated with creating, updating and reviewing the metadata.

Last updated: 20160922

Metadata Point of Contact

Contact information for the individual or organization responsible for the metadata information.

Person: Megan Shoda

Organization: U.S. Geological Survey

Position: Hydrologist

Phone: 317-600-2725

Email: meshoda@usgs.gov

Address type: mailing and physical

Address: 5957 Lakeside Blvd

City: Indianapolis

State or Province: IN

Postal code: 46278

Country: USA

Metadata Standards

Description of the metadata standard used to document the data and reference to any additional extended profiles to the standard used by the metadata producer.

Standard name: Content Standard for Digital Geospatial Metadata

Standard version: FGDC-STD-001-1998

FGDC Plus Metadata Stylesheet

Stylesheet: FGDC Plus Stylesheet

File name: FGDC Plus.xsl

Version: 2.3

Description: This metadata is displayed using the FGDC Plus Stylesheet, which is an XSL template that can be used with ArcGIS software to display metadata. It displays metadata elements defined in the Content Standard for Digital Geospatial Metadata (CSDGM) - aka FGDC Standard, the ESRI Profile of CSDGM, the Biological Data Profile of CSDGM, and the Shoreline Data Profile of CSDGM. CSDGM is the US Federal Metadata standard. The Federal Geographic Data Committee originally adopted the CSDGM in 1994 and revised it in 1998. According to Executive Order 12096 all Federal agencies are ordered to use this standard to document geospatial data created as of January, 1995. The standard is often referred to as the FGDC Metadata Standard and has been implemented beyond the federal level with State and local governments adopting the metadata standard as well. The Biological Data Profile broadens the application of the CSDGM so that it is more easily applied to biological data that are not explicitly geographic (laboratory results, field notes, specimen collections, research reports) but can be associated with a geographic location. Includes taxonomical vocabulary. The Shoreline Data Profile addresses variability in the definition and mapping of shorelines by providing a standardized set of terms and data elements required to support metadata for shoreline and coastal data sets. The FGDC Plus Stylesheet includes the Dublin Core Metadata Element Set. It supports W3C DOM compatible browsers such as IE7, IE6, Netscape 7, and Mozilla Firefox. It is in the public domain and may be freely used, modified, and redistributed. It is provided "AS-IS" without warranty or technical support.

Instructions: On the top of the page, click on the title of the dataset to toggle opening and closing of all metadata content sections or click section links listed horizontally below the title to open individual sections. Click on a section name (e.g., Description) to open and close section content. Within a section, click on a item name (Status, Key Words, etc.) to open and close individual content items. By default, the Citation information within the Description section is always open for display.

Download: FGDC Plus Stylesheet is available from the ArcScripts downloads at www.esri.com.

Federal Geographic Data Committee

[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

URL: <https://www1.usgs.gov/csas/ome>

Page Contact Information: [QME Service Desk](#)

Page Last Modified: Thursday, September 22, 2016